

**WHAT IS CLAIMED IS:**

- 1 1. A system for sealing electrical conduits and conductors, the system comprising:  
2 a chamber configured for attachment to a conduit through which at least one  
3 conductor runs such that the at least one conductor also runs through the chamber;  
4 a port that permits access to the chamber to inject a sealing compound into the  
5 chamber; and  
6 a vent that permits access to a portion of the conductor located between portions of  
7 the conductor that are surrounded by the sealing compound after the sealing compound is  
8 injected into the chamber.
- 1 2. The system of claim 1 wherein a pressure gauge that monitors the pressure within the  
2 chamber is attached to the vent.
- 1 3. The system of claim 1 wherein a pressure gauge that monitors the pressure within the  
2 chamber is placed inside the vent.
- 1 4. The system of claim 1 wherein the vent is blocked with a plug.
- 2 5. The system of claim 1 wherein an explosion-proof drain that vents vapors from within the  
3 chamber is attached to the vent.
- 1 6. The system of claim 1 wherein the chamber includes a base and a cover that is threaded  
2 to screw onto the base.
- 1 7. The system of claim 6 wherein the port is located in the cover.
- 1 8. The system of claim 1 wherein the vent includes a tube that separates the portions of the  
2 conductor that are surrounded by sealing compound from the portion of the conductor  
3 accessible through the vent.
- 1 9. The system of claim 8 wherein the at least one conductor runs perpendicularly across the  
2 tube.

- 1 10. The system of claim 8 wherein the tube includes two interlocking halves between which  
2 the at least one conductor is placed.
- 1 11. The system of claim 8 wherein the tube is made of plastic.
- 1 12. The system of claim 1 wherein the sealing compound is a two-part mixture that expands  
2 after mixing and injection into the chamber.
- 1 13. A method for sealing electrical conduits and conductors, the method comprising:  
2 attaching a chamber to a conduit to be sealed, the conduit including at least one  
3 conductor running through it;  
4 mounting a tube that opens to the outside of the chamber within the chamber;  
5 threading the at least one conductor through the chamber and through the tube;  
6 covering the chamber with a cover; and  
7 putting a sealing compound in the chamber.
- 1 14. The method of claim 13 further comprising placing a plug over an end of the tube on the  
2 outside of the chamber.
- 1 15. The method of claim 13 further comprising attaching a pressure gauge to an end of the  
2 tube on the outside of the chamber.
- 1 16. The method of claim 13 further comprising inserting a pressure gauge into the tube and  
2 placing a plug over an end of the tube on the outside of the chamber.
- 1 17. The method of claim 13 wherein the sealing compound fills the chamber and forms an  
2 explosion-proof seal in the chamber.
- 1 18. The method of claim 13 wherein mounting the tube in the chamber comprises:  
2 mounting a bottom half of the tube in the chamber;  
3 passing the at least one conductor across the bottom half of the tube; and

4 mounting a top half of the tube in the chamber over the at least one conductor and the  
5 bottom half of the tube.

6 19. The method of claim 13 wherein covering the chamber with the cover comprises  
7 screwing the cover onto the chamber.

1 20. The method of claim 13 wherein putting the sealing compound in the chamber comprises  
2 injecting the sealing compound into the chamber through a nozzle in the cover;  
3 placing a plug over the nozzle; and  
4 allowing the sealing compound to expand and harden.